

WHAT IS CLAIMED IS:

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1. A method for executing a transaction in a network having a source site and a destination site, the method comprising the steps of:

transmitting an initial transaction request message from said source site to said
5 destination site;

receiving said transaction request message at said destination site;

establishing an association of a data entry with said transaction in a destination
database; and

preserving said association of said data entry with said transaction in said destination
database so long as said transaction is active in said network.

2. The method of claim 1, comprising the further step of:
executing said transaction at said destination site, thereby producing transaction
results.

3. The method of claim 2, comprising the further step of:
where a prospective operation will override said transaction results in a memory
board,
storing said transaction results in said destination database, thereby enabling
5 retransmission of said transaction results if a further reservation request message is received
at said destination site.

4. The method of claim 2, comprising the further step of:
transmitting said transaction results to said source site over said network.

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5. The method of claim 1 comprising the further step of:

transmitting another transaction request message if no response is received from said destination site at said source site within a source site time-out period.

6. The method of claim 5, comprising the further step of:

deleting said initial transaction request message from the network if said transaction request message does not reach said destination site within a request message time-out period, wherein said source site time-out period exceeds said request message time-out period to prevent having two transaction request messages simultaneously in transmission through said network.

7. The method of claim 4, comprising the further steps of:

upon receiving a duplicate transaction request message,
identifying the data entry in the destination database established for said transaction;
acquiring said transaction results; and
retransmitting said acquired transaction results to said source site.

8. The method of claim 7, wherein the step of acquiring comprises:

retrieving said transaction results from said destination database.

9. The method of claim 7, wherein the step of acquiring comprises:

executing said transaction in response to said duplicate transaction request message, thereby producing said transaction results.

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10. The method of step 4, comprising the further steps of:
receiving said transmitted transaction results at said source site; and
transmitting, from said source site to said destination site, a release request to delete said data entry associated with said transaction in said destination database.
11. The method of step 10, comprising the further steps of:
receiving at said destination site, said release request to delete said data entry associated with said transaction; and
deleting, within said destination database, said data entry associated with said transaction, thereby liberating space in said destination database.
12. The method of step 11, comprising the further step of:
transmitting, from said destination site to said source site, a release response message, thereby indicating that said data entry associated with said transaction in said destination database has been deleted.
13. The method of step 1, comprising the further step of:
wherein the source site includes a processor and an agent device,
delegating said step of transmitting said initial transaction request message to said agent device.

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14 A system for reliably executing a transaction at a destination site requested by a source site, the system comprising:

means for transmitting an initial transaction request message to said destination site from said source site;

5 means for executing a transaction associated with said initial transaction request message at said destination site;

a reservation database at said destination site for storing information uniquely identifying said transaction.

15. The system of claim 14, wherein the reservation database is a content addressable memory.

16. The system of claim 14, wherein the source site comprises:
a processor; and the destination site comprises:
a memory.

17. The system of claim 16, wherein the source site further comprises:
a processor agent device for conducting communication with said destination site, thereby enabling said processor to efficiently concentrate on other tasks.

18. The system of claim 17, wherein the source site further comprises:
a source site database for preserving an identification and a status of said transaction until said transaction is complete.

20 A system for executing a transaction in a network having a source site and a destination site, the system comprising:

means for transmitting an initial transaction request message from said source site to said destination site;

means for receiving said transaction request message at said destination site;

means for establishing an association of a data entry with said transaction in a destination database; and

means for preserving said association of said data entry with said transaction in said destination database so long as said transaction is active in said network.

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